

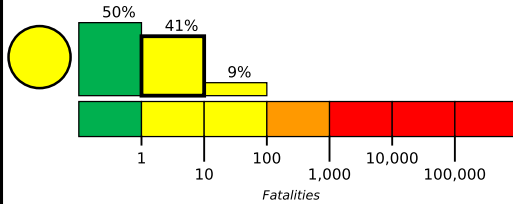
## M 5.3, 3km NNW of Magoula, Greece

Origin Time: 2019-07-19 11:13:16 UTC (Fri 14:13:16 local)

Location: 38.1153° N 23.5054° E Depth: 10.0 km

Created: 9 hours, 0 minutes after earthquake

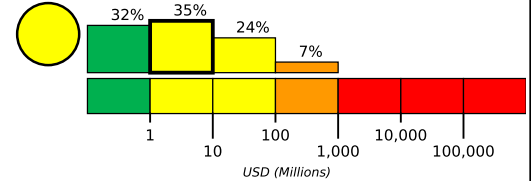
### Estimated Fatalities



Yellow alert for shaking-related fatalities and economic losses. Some casualties and damage are possible and the impact should be relatively localized. Past yellow alerts have required a local or regional level response.

Estimated economic losses are less than 1% of GDP of Greece.

### Estimated Economic Losses

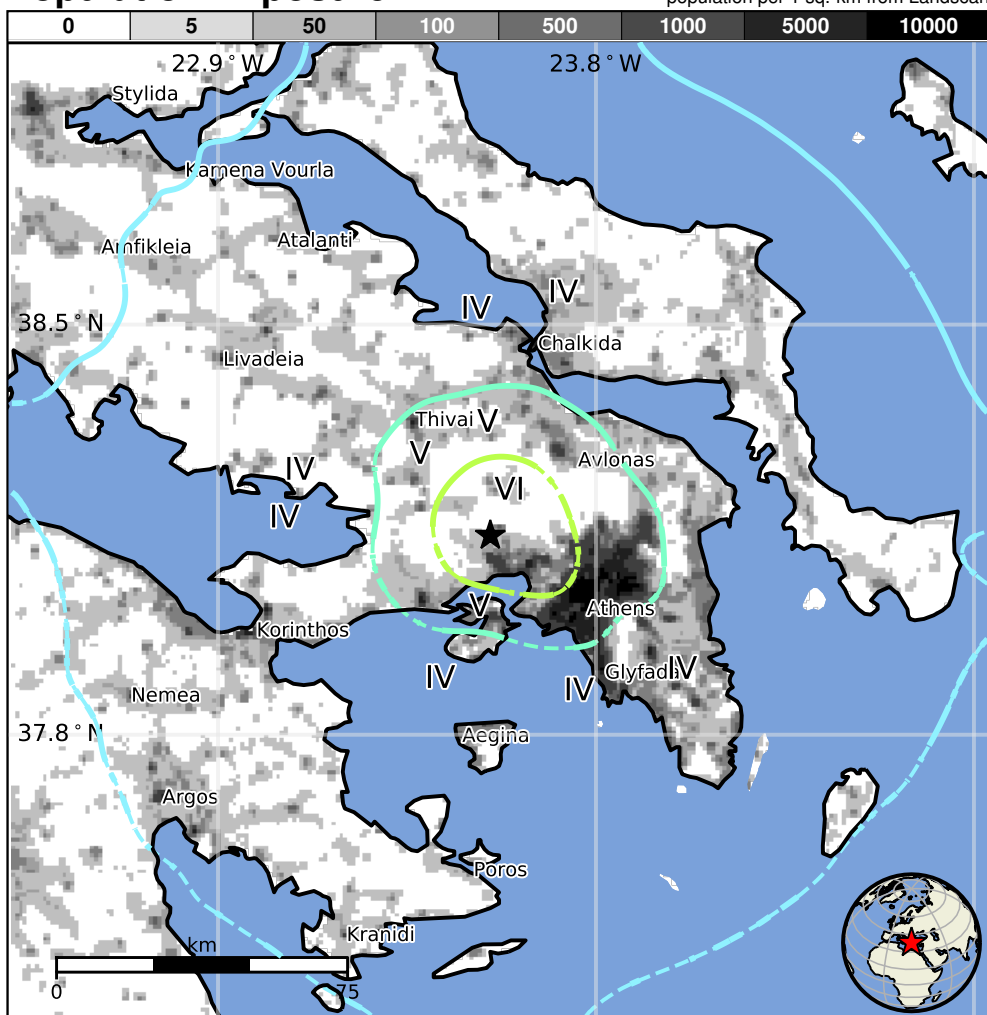


### Estimated Population Exposed to Earthquake Shaking

| ESTIMATED POPULATION EXPOSURE (k=x1000) | —*                    | 124k*  | 1,026k | 2,568k   | 704k     | 7k          | 0          | 0          | 0        |
|---|-----------------------|--------|--------|----------|----------|-------------|------------|------------|----------|
| ESTIMATED MODIFIED MERCALLI INTENSITY   | I                     | II-III | IV     | V        | VI       | VII         | VIII       | IX         | X+       |
| PERCEIVED SHAKING                       | Not felt              | Weak   | Light  | Moderate | Strong   | Very Strong | Severe     | Violent    | Extreme  |
| POTENTIAL DAMAGE                        | Resistant Structures  | None   | None   | None     | V. Light | Light       | Moderate   | Mod./Heavy | Heavy    |
|   | Vulnerable Structures | None   | None   | None     | Light    | Moderate    | Mod./Heavy | Heavy      | V. Heavy |

\*Estimated exposure only includes population within the map area.

### Population Exposure



### Structures

Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction. The predominant vulnerable building types are rubble/field stone with lime and mid-rise nonductile concrete frame with infill construction.

### Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|------------|------------|------|------------|----------------|
| 1974-02-01 | 331        | 5.4  | VII(2k)    | 2              |
| 1986-09-13 | 165        | 5.9  | VIII(4k)   | 21             |
| 1999-09-07 | 10         | 6.0  | IX(10k)    | 143            |

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

### Selected City Exposure

from GeoNames.org

| MMI | City        | Population |
|-----|-------------|------------|
| VI  | Magoula     | 5k         |
| VI  | Mandra      | 11k        |
| VI  | Aspropyrgos | 30k        |
| VI  | Elefsina    | 25k        |
| VI  | Fyli        | 3k         |
| VI  | Ilion       | 85k        |
| VI  | Peristeri   | 140k       |
| V   | Piraeus     | 164k       |
| V   | Kallithea   | 101k       |
| V   | Athens      | 664k       |
| III | Lamia       | 52k        |

PAGER content is automatically generated, and only considers losses due to structural damage.

Limitations of input data, shaking estimates, and loss models may add uncertainty.

<https://earthquake.usgs.gov/earthquakes/eventpage/us70004nt3#pager>

bold cities appear on map.

(k = x1000)

Event ID: us70004nt3